

AMENDMENTS TO THE CLAIMS

In the claims, please amend claim 13 and add new claims 31-40 as follows:

- 1-12. (canceled)
13. (currently amended) A composition for delivery of a polynucleotide to a cell comprising: the polynucleotide and an amphiphilic membrane active polyvinylether random copolymer.
14. (original) The composition of claim 13 wherein the polynucleotide is associated with the polyvinylether via an electrostatic interaction.
15. (original) The composition of claim 13 wherein the polynucleotide is associated with the polyvinylether via a covalent linkage.
16. (original) The composition of claim 15 wherein the polynucleotide is associated with the polyvinylether via a labile covalent linkage.
17. (original) The composition of claim 13 wherein the polyvinylether consists of a cationic polyvinylether.
18. (canceled)
19. (previously presented) The composition of claim 13 wherein the polyvinylether comprises a maleic anhydride modified polyvinylether.
20. (previously presented) The composition of claim 19 wherein the modified polyvinylether consists of an anionic polyvinylether.
21. (canceled)
22. (original) The composition of claim 13 wherein the polynucleotide is selected from the list consisting of: DNA, plasmid DNA, linear DNA, dsDNA, ssDNA, RNA, expression cassette, antisense oligonucleotide, siRNA, microRNA, RNA expression cassette, ribozyme, dsRNA, and synthetic polynucleotides.
23. (original) The composition of claim 22 wherein the polynucleotide expresses a protein.
24. (original) The composition of claim 22 wherein the polynucleotide expresses an RNA.
25. (original) The composition of claim 22 wherein the polynucleotide inhibits expression of a gene in the cell.
26. (original) The composition of claim 13 wherein the polyvinylether consists of a modified polyvinylether.
27. (original) The composition of claim 26 wherein the modified polyvinylether consists of an anionic polyvinylether.

28. (original) The composition of claim 27 wherein the polyvinylether consists of an amphiphilic polyvinylether.
29. (previously presented) The composition of claim 26 wherein the modification consists of a reversible modification.
30. (previously presented) The composition of claim 26 wherein the polynucleotide is covalently linked to the polyvinylether.
31. (new) The composition of claim 13 wherein the polyvinylether random copolymer comprises cationic monomeric units and alkyl or aryl monomeric units.
32. (new) The composition of claim 31 wherein the polyvinylether random copolymer is membrane active.
33. (new) The composition of claim 32 wherein the cationic monomeric units consist of amine-containing monomeric units.
34. (new) The composition of claim 13 wherein the polyvinylether random copolymer comprises cationic monomeric units and at least two classes of alkyl or aryl monomeric units.
35. (new) The composition of claim 34 wherein the polyvinylether random copolymer is membrane active.
36. (new) The composition of claim 35 wherein the cationic monomeric units consist of amine-containing monomeric units.
37. (new) The composition of claim 36 wherein the alkyl monomeric units contain alkyl groups selected from the group consisting of: ethyl, propyl, butyl, dodecyl, and octadecyl.
38. (new) The composition of claim 13 wherein the polyvinylether random copolymer comprises hydrophobic monomeric units and reversibly modified amine-containing monomeric units.
39. (new) The composition of claim 38 wherein the reversibly modified amine-containing monomeric units consist of maleic anhydride modified amine-containing monomeric units.
40. (new) The composition of claim 39 wherein the polyvinylether random copolymer is membrane active upon cleavage of the maleic anhydrides from the amine-containing monomeric units.